

# Water update: Arnold AFB Water is Safe to Drink

*By AEDC, Arnold AFB Bioenvironmental Engineering*

During routine potable water sampling on base in June 2017, AEDC discovered drinking water sources which had elevated levels of lead in the potable drinking water. The EPA action level is any detection above 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). These sources have been labeled, the water fountains have been disconnected and personnel in those buildings have been notified of this issue.

Any detectable level of lead in the water is of concern, but the limits that were detected, do NOT pose an immediate health risk to the base population. Rest assured that our Bioenvironmental Engineering team's priority is to do everything we can to make sure your health and safety are protected.

This plan includes:

1. Recommendation of an optimized corrosion control treatment (treating the water to make it less likely that lead will dissolve into the water)
2. Evaluation of source water treatment (ensuring that lead concentration in Arnold AFB drinking water is below the EPA action level)
3. Institute a public education program.

All aspects of our plan have been implemented and we continue to monitor the progress.

It is common for facilities built before 1986 to have detectable levels of lead because they are more likely to have been built using lead pipes. The Arnold AFB water chemistry lab is EPA certified to analyze drinking water. Immediately following the high results, a technical team sampled 100% of all drinking fountains, ice machines and food preparation sinks for lead. Sources with high lead rates were immediately removed from service. Additionally, water coolers identified for having lead components and those in industrial areas were removed from service. All of the replacement coolers have been installed. If you are concerned about lead in water sources at your home, contact your local water provider or visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead) to find out how to get tested for lead.

For further protection of our drinking water, equipment for corrosion control treatment is being installed. Corrosion control treatments will begin after the beginning of the year. Optimal Corrosion Control Treatment includes techniques such as pH adjustment and the addition of corrosion inhibitors that promote the formation of insoluble scales that prevent lead and copper from leaching from pipes into the drinking water. We expect to see results of this treatment in future lead testing.

The Tennessee Department of Environment and Conservation has assigned 20 specific sampling sites which will be tested every six months until Arnold AFB can demonstrate repeatable results below the established action levels. Bi-weekly water quality parameter samples (pH, alkalinity, calcium, conductivity, temperature, and in the future corrosion inhibitors) continue every two weeks. Results are submitted to the TDEC.

For more information call the water utility at 931-454-6066 or Bioenvironmental Engineering at 931-454-5351.

## FOR YOUR INFORMATION

According to the EPA, lead can cause serious health problems if too much enters your body from drinking water or other sources, and will affect individuals differently. Lead can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. The consumer can reduce their exposure to lead in drinking water by the following:

- (I) Run the cold water 15 to 30 seconds to flush out the water in the faucet body and home plumbing. This is the source of lead in almost all drinking water from a home tap.
- (II) Drink and cook with cold water only, do not use hot water for preparing baby formula.
- (III) Please note that boiling water does not reduce lead levels.

Lead is a common metal found in the environment. Lead can also enter drinking water when service pipes that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. The most common problem is with brass or chrome-plated brass faucets and fixtures with lead solder, from which significant amounts of lead can enter into the water, especially hot water.

The MCLG, or maximum contaminant level goal for lead is zero mg/L. It is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. The action level for lead is 0.015 mg/L. It is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

For media related questions contact AEDC Public Affairs at 931-454-4204.